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EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,984

Applicant(s)

MONROE, DAVID A.

Examiner

Tung T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5-6, 14-15, 19-23, 26-27, 30-31, 33-38, 40-43, 47-49, 53, 56 are rejected under 35 U.S.C. 102(b) as being anticipated by McNelley et al. (US 5,550,754).

Re claim 1, McNelley discloses a modular, multi-functional, hand-held surveillance system (figs. 8, 10-31) comprising:

- a) a base unit having a receiving assembly (148 of fig. 15);
- b) a component unit (160 of fig. 15) having a mounting assembly (162 of fig. 15), wherein the receiving assembly (148) in the base is adapted for accepting the mounting assembly (162) for securing the component unit to the base (148);
- c) an electrical interface in the base (252 of fig. 15);
- d) an electrical interface (148, 246, 252 of fig. 15) in the component unit and adapted for engaging the electrical interface in the base when the base and component unit are in mounted assembly;
- e) a power supply (160 of fig. 15) in the base and adapted for communicating with the component unit through the base and component unit interfaces when the base and component unit are in mounted assembly;

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f) a control system (400 of fig. 30) in the base and adapted for communicating with the component unit through the base and component unit interfaces when the base and component unit are in mounted assembly;

g) a locking system (162, 192 of fig. 8) for locking the base and the component unit in mounted assembly.

Re claims 5 and 6, McNelley further discloses wherein the component unit further comprises a day vision camera and night vision (102 of fig. 8).

Re claim 14, McNelley further discloses wherein the base module is a military sensor computer (100 of fig. 14).

Re claim 15, McNelley further discloses connector interfaces for connecting cables to the base for external communication devices (fig. 3).

Re claim 18, McNelley further wherein the base further includes connector interfaces for connecting cables to the base for external communication devices (174 and 184 of fig. 17).

Re claim 19, McNelley further discloses wherein the communication devices include a breakout box (174 of fig. 17).

Re claim 20, McNelley further discloses wherein the communication devices include a communications link (186, 188 of fig. 17).

Re claim 21, McNelley further discloses wherein the electrical interface in the base is adapted for cable connecting external devices to the base (184 of fig. 17).

Re claim 22, McNelley further discloses wherein the control circuit is adapted for shared

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use of image processing hardware and software for noise reduction for multiple component units (400 of fig. 30).

Re claim 23, McNelley further discloses wherein the control circuit is adapted for the shared use of image processing hardware and software for contrast enhancement for multiple component units (400 of fig. 30).

Re claim 26, McNelley further discloses wherein the control circuit is adapted for the shared use of contrast enhancement hardware and software for multiple component units (400 of fig. 17).

Re claim 27, McNelley further discloses wherein the control circuit is adapted for the shared use of image cropping hardware and software for multiple component units (see fig. 8 and fig. 30).

Re claim 30, McNelley further discloses wherein the control circuit is adapted for the shared use of communications protocols, hardware and software for multiple component units (174 of fig. 17).

Re claim 31, McNelley further discloses wherein the control circuit is adapted for the shared use of digital storage hardware and software for multiple component units (148, 174 of fig. 17, e.g. digital micro-processor).

Re claim 33, McNelley further discloses wherein the control circuit is adapted for the shared use of power supply hardware and control software (241 of fig. 15), and common battery types for multiple component units (160 of fig. 8).

Re claim 34, McNelley further discloses wherein the control circuit is adapted for the shared use of video processing hardware and associated software (Note multitasking software

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which enables the display of a conferee on a monitor 118 during execution and display of various computer programs).

Re claim 35, McNelley further discloses wherein the control circuit (400 of fig. 30) is adapted for the shared use of video zoom hardware and software for multiple component units (Note McNelley discloses auto-dial, holding, multiple line holding, visual control prompts on the display, touch screen controls, remote controlled panning, tilting, and zooming of the teleconferencing camera, an automatic moving display that tracks a conferee as he/she moves about, camera and light positioning to read documents laid flat on a surface, and additional technologies to ensure eye contact, among numerous other well-known teleconferencing features, may be included within the tele-camcorder of the present invention).

Re claim 36, McNelley further discloses wherein the control circuit is adapted for the shared use of an electronic viewing device for multiple component units (400 of fig. 30, and 164 of fig. 8).

Re claim 37, McNelley further discloses wherein the control circuit (174 of fig. 8) is adapted for the shared use of user interface controls for multiple component units (186 of fig. 8).

Re claim 38, McNelley further discloses wherein the control circuit is adapted for the shared use of a handgrip for portable use of multiple component units (164 of fig. 8).

Re claim 40, McNelley further discloses wherein the control circuit is adapted for the shared use of electronic interface for sensor data to other systems for multiple component units (154 of fig. 8).

Re claim 41, McNelley further discloses wherein the control circuit is adapted for the shared use of mounting equipment for multiple component units (162, 192 of fig. 9).

Re claim 42, McNelley further discloses wherein the control circuit is adapted for supplying a common mechanical and electrical method of attaching various sensors to a control module and for providing support and electrical interface (184 252, 241 of fig. 15).

Re claim 43, McNelley further discloses wherein the control circuit is adapted for supplying a common user interface with similar commands for similar functions between multiple component units (400 of fig. 30).

Re claim 47, McNelley further discloses wherein the control circuit is further includes a storage device for storage of sensor setting parameters in non-volatile memory in the sensor module (422 of fig. 30).

Re claim 48, McNelley further discloses wherein the control circuit further includes dynamic menus adapted for changing with the change of component units (174 of fig. 15).

Re claim 49, McNelley further discloses wherein the control circuit further includes the capability of downloading code and commands (402 of fig. 30, e.g. network access).

Re claim 53, McNelley further discloses the component adapted for generating a stream of frames of video or images, and wherein the control circuit is adapted for processing raw video as generated (404, 406, and 400 of fig. 30).

Re claim 56, McNelley further discloses wherein up to sixteen sequential frames may be averaged (inherent, 16 images or frames/seconds).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-13, 16-17, 24, 29-30, 32, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNelley et al. (US 5,550,754) as applied to claim 1, and in view of Jacobsen et al. (US 6,198,394).

Re claims 7-9, 16-17, 24, and 32, McNelley teaches including connector interfaces for connecting cables to the base for external communication devices (184 of fig. 15) and the component unit further comprises the sensor (154 of fig. 8) except a laser range finder, an RF probe, an NBC detector, wherein the control circuit is adapted for the shared use of geolocation hardware and software for multiple component units, a FLIR system is an uncooled FLIR, a cooled FLIR, or a solid state thermionic device, and wherein the control circuit is adapted for the use of a thermionic cooler to cool a focal plane array FLIR, an MMR unit, Motion Detection and Alarm hardware and software for multiple component units as claimed.

However, Jacobsen teaches a laser range finder, an RF probe, an NBC detector a FLIR system is an uncooled FLIR, a cooled FLIR, or a solid state thermionic device, and wherein the control circuit is adapted for the use of a thermionic cooler to cool a focal plane array FLIR, a Motion Detection (fig. 8 and col. 16), an alarm hardware and software for multiple component units (351 of fig. 5A), and wherein the control circuit is adapted for the shared use of

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geolocation hardware and software for multiple component units (70 of fig. 5A), and an MMR unit (660 of fig. 8) . Therefore, taking the combined teachings of Jacobsen and McNelley as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings (fig. 8, col. 16) of Jacobsen for the same purpose of detecting heat, temperature, agents to prevent a user from a dangerous situation. Doing so would provide accurate information about location and the physiological status of each individual who communication to each other and remote locations as suggested by Jacobsen (col. 1).

Re claims 29-30, and 50, Jacobsen further teaches wherein the control circuit is adapted for the shared use of image compression hardware and software for multiple component units (330 of fig. 5A) and generating a stream of frames of video or images, wherein the control circuit is adapted for averaging sequential frames for producing an enhanced image, wherein multiple frames are averaged, and the control circuit further supporting the use of an http browser (note LAN network) .

5. Claims 28, 44-45 and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNelley et al. (US 5,550,754) as applied to claim 1, and in view of Bubo (US 5,280,167).

Re claims 28, 44, 51, and 52, McNelley teaches all limitations above except an attachable an attachable image intensifier module on the base for electronically adjusting the gain based on balancing the image quality with the noise level in the system, and wherein the control circuit is adapted for the use of an attachable radiation detection and analysis module on the base, and image processing filtering functions for multiple component units. as claimed.

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However, Bubo is teaches an attachable an attachable image intensifier module as image processing filtering functions (8 of fig. 1) on the base for electronically adjusting the gain based on balancing the image quality with the noise level in the system and iris (7 of fig. 1) (Note the video camera, gain of the gated image intensifier, gain of the gated image intensifier and an auto-iris zoom lens coupled to the image intensifier are all under the control of a video processor). Therefore, taking the combined teachings of McNelley and Bubios as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Bubios into the system of McNelley for the same purpose of adjusting the gain based on the balance of images so that noise of the image is reduce. Doing would reduce noises of the images and then be displayed on a monitor for viewing located image clearly.

6. Claims 25 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNelley et al. (US 5,550,754) as applied to claim 1, and in view of Suzuki et al. (US 5,890,019).

Re claims 25 and 39, McNelley teaches all limitations as shown above except the control circuit is adapted for the shared use of image stabilization hardware and software for multiple component units and for the shared use of tripod for holding as claimed.

However, Suzuki teaches the control circuit is adapted for the shared use of image stabilization hardware and software for multiple component units and for the shared use of tripod for holding (col. 11, lines 15-67). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Suzuki into the system of McNelley for

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the same purpose of stabilizing images using the tripod to hold the camera. Doing so would provide the quality of images for later processing.

7. Claims 1-4 and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen (US 6,198,394) in view of Yamamoto (US 6,686,967 B1).

Re claims 1-4, and 57-60, Jacobsen discloses a hand-held surveillance system (figs. 5, 5A, and 8) comprises a plurality of sensor units (620 of fig. 8), each comprising a plug, the units selected from a group of :a high performance day module; a high performance night module; a laser range finder; a forward looking infrared module; a radio frequency probe module; a nuclear, biological, and chemical detector (fig. 8; col. 16); a data input device (372 of fig. 5A); a display (338 of fig. 5A); an electrical interface in the system; and an electrical interface in each of the sensor units (the elements in fig. 5A are connected each other, electrical interface). Jacobsen teaches the sensor units mounted on the hand-held surveillance system (336, 374, 372, 342 of fig. 5A; see also 620 of fig. 8) so called a connector and receptacle, wherein the sensors are mounted to the hand-held device.

It is noted that Jacobsen does not particularly teach a mounting rail is adapted to couple a plurality of sensor units, wherein the receiving assembly comprises a channel slide mounted on the base and wherein the mounting assembly comprises a rail system mounted on the component unit and mated with the channel slide, whereby the component unit is adapted for sliding into the channel slide as claimed.

However, Yamamoto teaches (80-88 of fig. 9) a mounting rail is adapted to couple a plurality of sensor units (20A, 22A and 22 of fig. 9), wherein the receiving assembly comprises a

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channel slide (70 of fig. 9) mounted on the base and wherein the mounting assembly comprises a rail system (82 of fig. 9) mounted on the component unit and mated with the channel slide, whereby the component unit is adapted for sliding into the channel slide (140, 160 of fig. 9).

Therefore, taking the combined teachings of Yamamoto into the system of Jacobsen for as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Yamamoto into the handheld surveillance system of Jacobsen for the same purpose of mounting a plurality of sensor unit for sensing or detecting agent or object. Doing so would allow the user to change different sensor that would be used in different environment.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cryder et al. (US5,959,668) discloses an automatic exposure and gain control for a sensor using video feedback.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tung T. Vo
Examiner
Art Unit 2613



GT/NO
PATENT EXAMINER

T.Vo